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| 10/765,834 | 01/29/2004 | Yoshiki Nobuto | 248226US0 | 2367 |

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| EXAMINER | |
|---|---|
| STEELE, JENNIFER A | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 1771 | |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/765,834 | NOBUTO ET AL. | |
| | Examiner | Art Unit | |
| | Jennifer Steele | 1771 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *27 February 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-6* is/are pending in the application.

4a) Of the above claim(s) *7* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102(e)*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

1. Claim 1 and 6 rejected under 35 U.S.C. 102(e) as being anticipated by US Patent 6767853 to Nakayama et al. which teaches a fibrous substrate for artificial leather

comprising of microfine fiber bundles of (A) and (B) where (A) is elastic and (B) is non-elastic. This rejection is detailed in the previous Office Action of 5/18/2006 and with respect to claims 1 is maintained. As to claim 6, Nakayama teaches coating at least one surface of the substrate with a resin layer (claim 7). A resin layer is a film.

### *Claim Rejections - 35 USC § 102(b)*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakayama (referred to as Takeshi et al in previous Office Action of 11/27/2007) EP 1067234 A. As to claim 1 which has not been amended, the previous office action of 11/27/2006 is maintained. As to claim 6, Nakayama teaches coating at least one surface of the substrate with a resin layer (claim 7). A resin layer is a film.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

> the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claim 2, 4 and 5 rejected under 35 U.S.C. 103(a) as being unpatentable over Nakayama EP 1067234 A in view of Kato et al. (US 4,476,186). The Nakayama reference teaches a fibrous substrate for artificial leather, comprising microfine fiber bundles of elastic fibers (A) and a microfine fiber bundles of nonelastic fibers (B). As to claim 2 and 4, Nakayama differs from the current application and does not teach that the elastic microfine fibers in the bundle (A) laterally stick together while keeping their original fibrous shape, and that the sticking length is 2/3 or less of the fiber diameter. Nakayama does not teach that the raised single fibers of the microfine fiber in the fiber bundle (A) do not stick to each other.

Kato teaches an entangled non-woven fabric having a fiber structure which comprises an ultrafine fiber bundle of fiber size not greater than about 0.5 denier that are entangled so that a portion (A) of the fiber bundles are entangled with one another and another portion (B) of the ultrafine fiber bundles have the fine fibers branching from the bundles (ABST). Kato teaches that the ultrfine fibers and fine bundles of ultrafine fibers

are entangled with one another and In which both portions (A) and (B) are nonuniformly distributed in the direction of fabric thickness (col. 2 lines 40-43). Kato teaches the fiber sheet is treated with a high speed fluid jet streams to branch the ultrafine fibers to fine bundles of ultrafine fibers and to simultaneously entangle the fibers and their bundles (col. 10, lines 35-39). Kato teaches this structure relates to a grained sheet having on at least one of its surfaces a grain formed by the fiber structure composed of ultrafine fibers to fine bundles of ultrafine fibers and having a distance between the fiber entangling points of not greater than about 200 microns and a resin in the gap portions to the fiber structure (ABST). Kato teaches a non-woven fabric for synthetic leather and teaches a grained surface that improves flexibility, shearing fatigue resistance and scratch and scuff resistance (col. 2, lines 26-30). Kato teaches a suede-like surface having a dense and beautiful fluff and the fluff was seen continuing from the secondary fiber bundles (col. 18, lines 28-30). Kato teaches the surface of the finished sheet had a grain that was composed of the fibrillated fibers and the resin encompassing the fibrillated fibers (col. 18, lines 20-30).

It would have been obvious to one of ordinary skill in the art to produce a leather-like substrate of Nakayama with the structure of Kato motivated to produce a suede-like surface and a grain that is flexible, durable and soft. It further would have been obvious to provide a surface treatment that left a sticking length of 2/3 or less of the fiber diameter motivated to produce a surface with a soft feel that would duplicate suede leather.

4. Claim 3 rejected under 35 U.S.C. 103(a) as being unpatentable over Nakayama in view of Minami, EP 1213377 A1. Nakayama discloses an artificial leather material as set forth in the preceding paragraph. Nakayama differs from the claimed invention because it does not teach that a powder is present within the fibrous material of (A). Minami teaches use of a powder affixed in nonwoven fabric manufactured from islands–in-sea type fibers. Minami claims a powders-affixed nonwoven fabric comprising of powders less than 50 micron, affixed in fiber web of fiber diameter of 4 micron or less with a length of 3 mm or less and cite examples using fibers of 0.5 denier. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated a fine particle into the entangled non-woven substrate motivated by the expectation that this would enhance fibrillation of the fiber material of Nakayama.

5. Claim 3 rejected under 35 U.S.C. 103(a) as being unpatentable over Takeshi in view of either Kato et al US 4476186 or US 4612228 which references using fine particles or fillers to form the grain and facilitate fibrillation. See US 4476186 col. 1 line 50 and US 4612228 col. 9 lines 4-31. . Takeshi discloses an artificial leather material as set forth in the preceding paragraph. Takeshi differs from the claimed invention because it does not teach that a powder is present within the fibrous material of (A). Kato's inventions claim Ultrafine Fiber Entangled Sheet non-woven fabrics having a fiber structure that comprises a portion (A) of ultrafine fiber bundles entangled with (B) of ultrafine fiber bundles. Kato's inventions both reference various fillers and fine

particles that can be added to improve grain and fibrillate fibers. Therefore it would have obvious to one of ordinary skill in the art at the time the invention was made to have incorporated a fine particle into the entangled non-woven substrate sheet motivated by the expectation of improved grain and fiber fibrillation.

***Response to Arguments***

6. Applicant's amended claims, filed 2/27/207, have been amended to clarify the indefinite terms of partially stick and substantially stick and suede-finished and grained leather-like sheet in claims 2,4,5 and 6 and therefore the 35 USC § 112 rejections have been withdrawn.

7. Applicant's arguments filed 2/27/2007 with respect to the 35 USC 102(e) and 120(b) rejections with respect to claims 1 and 6 have been fully considered but they are not persuasive. Applicant did not amend claim 1 and examiner considers the claim limitations as written to be anticipated by Nakayama et –EP and Nakayama et al-US herein referred to as Nakayama. Applicant argues that the elastic fiber bundle A is formed from the microfine fiber-forming A' which contains an elastic polymer as the island component and the non-elastic fiber bundle B is formed from the microfine fiber-forming fiber B' which contains non-elastic polymer as the island component. Examiner reads Claim 1 as "a leather-like substrate comprising a fiber-entangled nonwoven fabric that comprises a microfine fiber bundle (A) and a microfine fiber bundle (B)... the fiber bundle (A) comprising 10-100 microfine fibers ...which are made of an elastic polymer

and the microfine fiber bundle (B) comprising a microfine fiber...which is made of a non-elastic polymer". The claims do not require that the bundles are solely A or solely B, but instead they have bundles which comprise A and which comprise B, which means that each bundle which comprises A can also comprise B and each bundle which comprises B can also comprise A. Further, Applicant does not recite the use of A' and B' in the claims and therefore Examiner can not consider the use of A' or B' as a claim limitation. Examiner agrees that the fiber bundles of Nakayama comprise both microfine fiber A and microfine fiber B as stated in claim 1 of Nakayama. The 35 USC 102(e) and 102(b) rejection of claim 1 and 6 are maintained in this Office Action.

8. Applicant's arguments filed 2/27/2007 with respect to the 35 USC 102(e) and 120(b) rejections of claims 2 and 4 have been considered but are moot in view of the new ground(s) of rejection.

9. Applicant's arguments on page 8, line 5-12 with respect to Examiner's comments in the Response to Arguments section of the Office Action of 11/27/2006 that Examiner alleges: "According to claim 1 of current application, there is no claim of two kinds of fiber bundles". As stated above, the claims do not require that the bundles are solely A or solely B, but instead they have bundles which comprise A and which comprise B, which means that each bundle which comprises A can also comprise B and each bundle which comprises B can also comprise A. Examiner understands the claim is

intended to claim two kinds of fiber bundles, but the claim as written does not require that bundle A be different from bundle B.

10. Applicant's arguments on page 8 lines 13-23, with respect to withdrawn Claim 7 are not considered persuasive. Applicant states that "the microfine fibers and microfine fiber bundles are not directly entangled. Instead, the microfine fiber-forming fibers A' and B' are entangled." The claim language states that "producing a fiber-entangled nonwoven fabric (A) by blending the microfine fiber-forming fiber (A') and the microfine fiber-forming fiber (B')". The claim language and above statement are not equivalent as one indicates that the microfine fibers can be blended and the other indicates that the microfine fibers can be entangled. To one of ordinary skill in the art, the process of blending is not equivalent to the process of blending. Applicants have amended Claim 7 to indicate that "(A') and (B') are made into the microfine bundles in (6)". Step (6) does not clarify how (A') and (B') become bundles before they are blended. Examiner does not consider the limitation in step (6) that states "making the microfine fiber-forming fiber (A') and the microfine fiber-forming fiber (B') into the microfine fibers to form the ....bundle (A) and the ...bundle (B)" a clarification of the process of making bundles A and bundles B, where bundle A is solely of A' and bundle B is solely of B'.

11. Applicant's arguments with respect to the 103 (a) rejection over Claim 3 are not considered persuasive because while Minami and Kato do not disclose fiber bundle A and fiber bundle B, Kato discloses fiber bundles of ultrafine fibers as drawn to a leather-

like sheet substrate and Kato teaches combinations of polymer fiber bundles which would include an A and a B bundle and therefore the Examiner considers there is sufficient motivation to use the powder of Kato in the current invention. Minami teaches a process for affixing powders into fine-fiber aggregates and bundles and therefore provides motivation to combine the invention of Minami with the invention of Takeshi in order to produce a leather-like sheet substrate with a suede-like finish of fine fibers that do not stick together.

12. Applicant's arguments with respect to the Double Patenting rejection over claims 1 and 15 of Nakayama et al –US is not considered persuasive for the same reasons that the applicant's arguments with respect to the 35 USC 102(e) and 102(b) rejection over Nakayama as stated in paragraph 6 of this Office Action.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer Steele whose telephone number is (571) 272-7115. The examiner can normally be reached on Office Hours Mon-Fri 8AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

5/21/2007

ELIZABETH M. COLE
PRIMARY EXAMINER